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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/019,749 | 12/21/2001 | Rudiger Hauschild | 71980/56667 | 8823 |
| 21874 | 7590 | 04/22/2003 | | |
| EDWARDS & ANGELL, LLP P.O. BOX 9169 BOSTON, MA 02209 | | | EXAMINER | |
| | | | WALSH, BRIAN D | |
| | | ART UNIT | PAPER NUMBER | |
| | | 3722 | | |
| DATE MAILED: 04/22/2003 | | | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|-------------------------|------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 10/019,749 | HAUSCHILD ET AL. |
| | Examiner Brian Walsh | Art Unit 3722 |

-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 21 December 2001.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 11-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 11-30 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 21 December 2001 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ . |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ . | 6) <input type="checkbox"/> Other: _____ . |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 11 – 15, 18, 19, 21 – 25, 28 and 29 are rejected under 35 U.S.C. 102(b) as being anticipated by Williams.

Regarding claims 11, 12, 18 and 19, Williams discloses a shank-end milling-type tool comprising a shank portion (1) having a longitudinal axis, a first end that can be detachably connected to a drive device and second end with a groove-shaped recess (2) extending in the longitudinal direction, a cutter blade (4, 4a, 4b, 19 and 27) in the groove and fixedly attached to the shank having a leading flat face in the direction of use wherein the blade made of steel and is provided with a wear resistant blade edge on the leading face (Col. 2, lines 43 – 53).

Regarding claims 13 – 15, Williams discloses in figures 2a and 2b that the leading and trailing edges are rounded and cut-corner designs.

Regarding claims 21 – 25, 28 and 29, Williams inherently teaches the method steps as set forth in the above rejections.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 16 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Williams in view of Schweikert et al.

Williams discloses all of the elements as set forth in the above rejections, however, Williams fails to disclose the cutter blade comprises a curved surface having a convex face, parallel to the longitudinal axis, pointing toward a direction of rotation during use.

Regarding claim 16, Schweikert et al. discloses a milling tool similar to the instant invention as well as Williams, comprising a shank-end tool with a cutter blade comprising a curved surface having a convex face, parallel to the longitudinal axis, pointing toward a direction of rotation during use (see figure 6).

Regarding claim 26, Schweikert et al. inherently discloses the method steps as set forth in the above rejection since Applicant has set forth no further limiting method steps or article limitations.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the blade of Williams to include the curved surface of Schweikert et al. since Schweikert et al. teaches the use of this surface in order to overcome vibration and high wear problems (Col. 1, lines 29 – 31 and 36 – 38).

3. Claims 17 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Williams in view of Ogawa.

Williams discloses all of the elements as set forth in the above rejections, however, Williams fails to disclose the cutter blade comprises surfaces that operate in a “fan-like” action.

Regarding claim 17, Ogawa discloses a cutting tool similar to the instant invention wherein the blade includes a shovel-like arrangement with blades that are sloped with an angle relative to the longitudinal axis to produce a fan-like action.

Regarding claim 27, Ogawa inherently discloses the method steps as set forth in the above rejection since Applicant has set forth no further limiting method steps or article limitations.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the blade of Williams to include the shovel-like blade of Ogawa since Ogawa discloses this arrangement on the blade in order to reduce cutting friction and prevent the blade edge from being burned (Col. 1, lines 34 – 67).

4. Claims 20 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Williams in view of Freitag.

Williams discloses all of the elements as set forth in the above rejections, however, Williams fails to disclose the shank comprises a hollow cylindrical body at least at the second end.

Freitag discloses a cutter similar to the instant invention for cutting through a Styrofoam workpiece comprising a hollow cylindrical shank (40). See figure 3.

Regarding claim 30, Freitag inherently discloses the method steps as set forth in the above rejection since Applicant has set forth no further limiting method steps or article limitations.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the shank of Williams to include the hollow shank of Freitag since Freitag inherently teaches this void in order to experience a weight reduction of the device.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Edming, Holloway et al., Hamilton, Paige, Reynolds, Costil, Janness and Simson et al. all discloses cutting tools with blades and shanks similar to the instant invention.

Faxing of Responses to Office Actions

6. In order to reduce pendency and avoid potential delays, TC 3700 is encouraging FAXing of responses to Office Actions directly into the Group at (703) 872-9302. This practice may be used for filing papers not requiring a fee. It may also be used for filing papers which require a fee by applicants who authorize charges to a PTO deposit account. Please identify the examiner and art unit at the top of your cover sheet. Papers submitted via FAX into TC 3700 will be promptly forwarded to the examiner.

Art Unit: 3722

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Walsh whose telephone number is (703) 605-0638. The examiner can normally be reached on Monday - Friday 7:30 A.M. to 4:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrea Wellington can be reached on (703) 308-2159. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9302 for regular communications and (703) 872-9303 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1148.

[Signature]
BDW
April 16, 2003

A. L. Wellington
A. L. WELLINGTON
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700